

WHAT IS CLAIMED IS:

1. A reporting system comprising:

a report initiating means for generating a request for a report;

5 one or more data storage devices for holding the data used for generating the report;

an intelligence server, in communication with the user engine, for receiving the generated request from the report initiating means, and for routing the request for processing, the intelligence server including

an object server for controlling and managing all application objects independent of an interface or a user;

a query engine for mediating the generated request received from the user engine to format and process the request, submitting the request against the data stored in the one or more data storage devices, extracting the data from the data storage devices and returning one or more result sets from the submitted request; and

15 an analytical engine for receiving the result sets, performing further processing of the result sets by running a plurality of statistical analyses of the data included in the result sets to generate a report for presentation to a user.

2. The reporting system as claimed in claim 1 further comprising a transmission facility for transmission of a generated report via a communication channel to the user.

20 3. The reporting system as claimed in claim 2 wherein the transmission facility may transmit the generated report to the user using one or more of an email communication channel, a text-to-message communication channel, a video communication channel, a web site

communication channel, a telephone communication channel, a facsimile communication channel, a pager communication channel, a PDA communication channel, and a WAP protocol device communication channel.

4. The reporting system as claimed in claim 1 wherein there are a plurality of report
5 initiating means, a plurality of analytical engines and a plurality of query engines.

5. A method for generating a report comprising the steps of:

receiving a request for a report from a user;

transmitting the received request to a query engine;

identifying one or more data storage devices to receive the request;

10 transmitting the request to the identified one or more data storage devices;

extracting data from the one or more data storage devices responsive to the transmitted
request to form one or more result sets;

transmitting the one or more result sets to an analytical engine; and

generating a report from the result sets.

15 6. The method as claimed in claim 5 further comprising the step of pre-processing
the received request prior to the transmitting the received request step and the step of filtering the
transmitted request after the step of transmitting the received request if the received request
cannot be transmitted to the data storage devices in its original format.

7. An intelligence server for a reporting system, wherein the reporting system
20 includes a report initiating means for generating a request for a report, the intelligence server
comprising:

a server layer for receiving the generated request and for coordinating a flow of processing of the received request in accordance with a predetermined prioritization scheme;

an application logic layer including a plurality of business intelligence rules used for generating the report;

5 an analytical layer, in communication with the report initiation means and the server layer, for receiving the request to be processed from the server layer, transmitting the processed request to one or more data storage devices, and for extracting data from the one or more data storage devices responsive to the transmitted request; and

10 wherein the extracted data is processed by the application logic layer to generate the report and the processing is independent of a user interface.

8. The intelligence server as claimed in claim 7 wherein the analytical layer includes:

an analytical engine for receiving the generated request from the report initiation means and for running a plurality of statistical analyses of data according to the generated request; and

15 a query engine, in communication with the analytical engine, for mediating the generated request received from the report initiation means, formatting and processing the request,

submitting the formatted request to the data storage devices, extracting the data from the data storage devices and returning one or more result sets from the submitted requests.

9. The intelligence server as claimed in 7 further comprising a statistical data module for monitoring and capturing data relating to a plurality of usage patterns of the intelligence
20 server.

10. The intelligence server as claimed in claim 7 further comprising a transmission facility for transmission of a generated report via a communication channel to a user.

11. The intelligence server as claimed in claim 10 wherein the transmission facility may transmit the generated report to the user using one or more of an email communication channel, a text-to-message communication channel, a video communication channel, a web site communication channel, a telephone communication channel, a facsimile communication channel, a pager communication channel, a PDA communication channel; and a WAP protocol device communication channel.

12. The intelligence server as claimed in claim 7 wherein the analytical layer includes: a plurality of analytical engines for receiving the generated request from the report initiation means and for running a plurality of statistical analyses of data according to the generated request; and

a query engine, in communication with the analytical engine, for mediating the generated request received from the report initiation means, formatting and processing the request, submitting the formatted request to the data storage devices, extracting the data from the data storage devices and returning one or more result sets from the submitted request.

13. The intelligence server as claimed in claim 7 wherein the application logic layer includes an XML generation module for converting a received request to an XML format and for converting a result set to the XML format.

14. The intelligence server as claimed in claim 7 wherein the application logic layer includes one or more components for report viewing, one or more components for server monitoring, one or more components for object construction and one or more components for administration of the reporting system.

15. The intelligence server as claimed in claim 7 wherein a plurality of report

initiation means generate a plurality of requests for reports and wherein the server layer includes a number of servers as needed to respond to the plurality of requests for reports without failure.

16. The intelligence server as claimed in claim 7 wherein a plurality of intelligence servers are provided for the reporting system.

5 17. The intelligence server as claimed in claim 7 wherein the analytical layer includes:
a plurality of analytical engines for receiving the generated request from the report initiation means and for running a plurality of statistical analyses of data according to the generated request; and

10 a plurality of query engines, each in communication with the plurality of analytical engines, for mediating the generated request received from the report initiation means, formatting and processing the request, submitting the formatted request to the data storage devices, extracting the data from the data storage devices and returning one or more result sets from the submitted request.

15 18. The intelligence server as claimed in claim 7 further comprising an administrative console and an application programming interface to monitor and manage all activity on the intelligence server.

19. The intelligence server as claimed in claim 7 further comprising a command line interface capable of receiving a script based command to be translated into a user request or an administrative request.